IN THE CLAIMS

1. (Amended) An apparatus for passively monitoring physiology of a patient, the apparatus comprising:

at least two sensors, each comprising a piezoelectric film, for sensing physiological signals from the patient and environmental signals from an environment around the patient;

a converter communicating with the at least two sensors for converting the physiological and environmental signals into digital signals;

a processor communicating with the converter for isolating physiological digital signals from the digital signals by comparing the digital signals between the at least two sensors to provide physiological data; and

a monitor communicating with the processor for displaying the physiological data in real-time.

Please cancel claims 2 and 3.

4. (Amended) The apparatus of claim 1, wherein the piezoelectric film comprises a polyvinylidene fluoride (PVDF) film.

5. (Amended) The apparatus of claim 1, further comprising at least one band-pass filter coupled with the at least two sensors for filtering out at least one of the environmental signals.

6. (Amended) The apparatus of claim 5, further comprising a pre-amplifier coupled with the band-pass filter for pre-amplifying at least one of the physiological and environmental signals.

7. (Amended) The apparatus of claim 1, where the physiological and environmental signals are selected from a group consisting of mechanical, thermal and acoustic signals.

8. (Amended) The apparatus of claim 1, wherein the physiological and environmental signals indicate cardiac output, cardiac function, internal bleeding, respiratory, pulse, apnea, temperature signals and combinations thereof.

9. (As filed) The apparatus of claim 4, further comprising a pad incorporating the PVDF film.

10. (As filed) The apparatus of claim 9, wherein the pad is a fluid-filled interface for facilitating transmittal of physiological signals.

11. (As filed) The apparatus of claim 10, wherein the fluid is a non-reactive substance selected from a group consisting of gel, water, air, foam, rubber, and plastic or combinations thereof.

Please cancel claims 12-15.

16. (Amended) The apparatus of claim 1, wherein the processor further comprises a frequency Fourier transform for transforming the physiological digital signals [data] into frequency data.

17. (Amended) The apparatus of claim 16, further comprising a microcomputer for recording, analyzing and displaying the frequency data to enable on-line assessment of the frequency data and real-time response to the frequency data.

18. (Amended) The apparatus of claim 1, wherein the piezoelectric film is positioned under the patient at various locations.

19. (Amended) The apparatus of claim 1, wherein the piezoelectric film is positioned on the patient as a wrapped cuff.

Please cancel claims 20-25

26. (Amended) A passive physiological monitoring apparatus for monitoring physiology of a patient comprising:

plural sensors for sensing data by placing the plural sensors on the patient, each of the plural sensors comprising a piezoelectric film, the piezoelectric film comprising a polymer for sensing data from the body and converting the sensed data into voltage measurements, the polymer comprising polyvinylidene fluoride (PVDF), wherein the plural sensors consist of pairs of sensors for sensing the sensed data from the patient and for separately sensing ambient noise;

a converter communicating with the each of the plural sensors for converting the sensed data into signals;

a computing device communicating with the converter for receiving and computing the signals and for outputting computed data; and

instrumentation communicating with the computing device for real-time interaction with the device and for display of the computed data.

Please cancel claim 27.

28. (Amended) The apparatus of claim 26, wherein at least one of the plural sensors is disposed on a substrate selected from a group consisting of an item of clothing, a stretcher, a bed, a litter, a cervical collar, body armor, body protection gear, a uniform, an extraction device, exercise equipment, furniture, a cushion, a seat and a seatback.

Please cancel claim 29

30. (Amended) The apparatus of claim 26, wherein the plural sensors are configured to measure pulse-wave velocity at plural locations on the patient.

31. (Amended) The apparatus of claim 26, wherein the plural sensors are configured to measure pulse-wave travel time at plural locations on the patient.

32. (Amended) The apparatus of claim 1, wherein the at least two sensors comprise an array of sensors distributed over different locations for measuring and monitoring the sensed data from the patient.

33. (Amended) The apparatus of claim 32, further comprising a litter incorporating the array of sensors for measuring acoustic and hydraulic signals from the patient, when the patient is positioned on the litter, and from surrounding areas.

34. (Amended) The apparatus of claim 33, wherein the acoustic and hydraulic signals comprise physiological signals from the patient and environmental signals from the surrounding areas.

Please cancel claim 35 and 36.

37. (Amended) A method for passively monitoring physiology of a patient, the method comprising:

placing a first piezoelectric sensor in contact with the patient;

placing a second piezoelectric sensor in a location near to but not in contact with the patient;

sensing physiological signals and environmental signals with the first sensor and environmental signals with the second sensor;

converting the physiological and environmental signals into physiological and environmental digital signals;

isolating the physiological digital signals from the environmental digital signals by subtracting environmental signals sensed by the second sensor from the signals sensed by the first sensor; and

displaying the physiological digital signals.

Please cancel claim 38.

39. (Amended) The method of claim 37, further comprising filtering out the environmental signals with a band-pass filter.

40. (As filed) The method of claim 37, wherein the sensing comprises sensing mechanical, thermal and acoustic signals.

Please cancel claim 41-44.

45. (Amended) The method of claim 37, further comprising:

placing a third sensor on the patient, at a location remote from the first sensor; and

measuring a pulse-wave velocity with the first and third sensors.

Please cancel claim 46.

--47. (New) An apparatus as in claim 1, wherein the at least two sensors comprise at least three sensors, two sensors contacting the patient at different locations and one sensor in an environment around the patient but not in contact with the patient.

48. (New) An apparatus as in claim 47, wherein the processor compares physiological signals and environmental signals sensed by the first and second sensors, respectively, so as to isolate the physiological signals.

49. (New) An apparatus as in claim 1, wherein a first sensor is disposed at a first location and a second sensor is disposed at a second location, and wherein the processor determines a pulse-wave velocity in response to a physiological signal time difference between the first sensor and the second sensor.

50. (New) An apparatus as in claim 49, wherein the processor calculates blood pressure data in response to the pulse-wave velocity.

51. (New) A method as in claim 45, further comprising converting the pulse-wave velocity into systolic and diastolic blood pressure data and displaying the blood pressure data.

52. (New) A method as in claim 37, further comprising:

engaging a third sensor with the patient, at a location remote from the first sensor;

comparing physiological and environmental signals from the first and third sensors; and

using the comparison to reduce environmental signals and amplify physiological signals.

53. (New) A method as in claim 37, further comprising:

engaging a third sensor with the patient, at a location remote from the first sensor; and

measuring a pulse-wave travel time between the first sensor and the third sensor.

54. (New) A method as in claim 53, further comprising converting the pulse-wave travel time into systolic and diastolic blood pressure data and displaying the blood pressure data.

55. (New) A method as in claim 37, wherein the sensing step includes sensing the physiological signals through one or more layers of clothing, bullet proof armor, or a combination thereof.

56. (New) A method for passively monitoring physiology of a patient, the method comprising:

engaging a first piezoelectric sensor with the patient;

engaging a second third piezoelectric sensor in a location near to but not in contact with the patient;

sensing physiological signals and environmental signals with the first sensor and environmental signals with the second sensor;

isolating the physiological signals from the environmental signals by subtracting environmental signals sensed by the second sensor from the signals sensed by the first sensor; and

displaying the physiological digital signals.

57. (New) A method as in claim 56, further comprising:

engaging a third piezoelectric sensor with the patient, at a location remote from the first sensor;

sensing physiological signals and environmental signals with the third sensor; and

comparing the physiological and environmental signals from the first sensor with the physiological and environmental signals from the third sensor to determine locations of the first and second sensors on the patient.